TRANSPRINT AQUAFLEX

TRANSPRINT AF BASE
TRANSPRINT AF WHITE

Character	Water-based print paste system for producing elastic and highly covering print transfers; consisting of TRANSPRINT AF BASE and TRANSPRINT AF WHITE
Chemical Structure	TRANSPRINT AF BASE Unpigmented basic paste free from white spirit, APEO or phthalate; compound of polyurethane dispersions, thickener and additives TRANSPRINT AF WHITE White pigmented basic paste free from white spirit, APEO or phthalate; compound of polyurethane dispersions, thickener and additives
Supplied Form	TRANSPRINT AF BASE: whitish, highly viscous paste TRANSPRINT AF WHITE: white, highly viscous paste
Ionic Character	Anionic
pH Value	7.5 – 9.5
Viscosity	TRANSPRINT AF BASE: 28,500 – 42,000 mPas (Brookfield RVT 20/6) TRANSPRINT AF WHITE: 33,200 – 47,300 mPas (Brookfield RVT 20/6)
Storage	If stored properly in a cool place between + 5 °C and + 40 °C in closed original containers, the product will hold for approx. 12 months. Protect from frost and excessive heat. Opened containers have to be reclosed well.

The above given values are product describing data. Please consult the 'delivery specification' for binding product specifications. Further data about product properties, toxicological, ecological data as well as data relevant to safety can be found in the safety data sheet.

Properties

TRANSPRINT AF BASE and TRANSPRINT AF WHITE are formaldehyde-free* and do not release any formaldehyde during fixation. The strict standards of various ecological labels such as Öko Tex Standard 100 (product class I) can thus be certainly fulfilled.

Film Properties / Fabric Handle

The TRANSPRINT AQUAFLEX transfers stand out for their very good elastic recovery and pleasant dry fabric handle. For this reason the system is particularly suited for application on stretchable knits with high performance demands such as lycra. Another application field are stylish transfer motifs in leisure wear on T-shirts and sweatshirts or for marking goods without using labels.

Printing Properties / Fastnesses / Others

TRANSPRINT AF BASE and TRANSPRINT AF WHITE can be excellently processed in the usual screen printing procedures and stand out for their very good open time in the screen.

With the TRANSPRINT AQUAFLEX System, very good washing and dry cleaning resistance is achieved when processed and transferred in accordance with the instructions.

Application Technique

Recommendation for Use and Processing

Transfers made with the TRANSPRINT AQUAFLEX system can be used in stretch knit fabric applications such as lycra or spandex.

For achieving a good fastness level the substrates have to be dry, clean and possibly free from auxiliary residues or preparation add-ons. We always recommend prechecking the suitabity of the materials especially when dealing with impregnated, heat-sensitive or coloured qualities. Dark synthetic qualities (polyester, polyester/cotton) dyed with disperse dyestuffs can lead to a staining of the design caused by dyestuff migration during the transfer process. An improvement can often be achieved by decreasing the transfer temperature and prolonging the transfer time. An intermediate layer with TRANSPRINT AF BLOCK can in most cases completely avoid a staining of the transfers (see technical leaflet).

Processing / Fixation

We recommend stirring up the pastes before use; colour additions are to be homogeneously mixed with the basic paste.

Colour Prints

For colour prints TRANSPRINT AF BASE is pigmented with BEZAPRINT dyestuffs and printed onto the transfer film. Intermediate drying has to be done between the individual colour prints.

When screen printing with very fine screens we observed that the printing behaviour of the colour black is much better when using a black mix consisting of red, blue and yellow instead of BEZAPRINT Black DW.

Print:	screen fineness 48 thread/cm – 90 thread/cm
Drying:	immediately at 40 °C to max 80 °C, 5 – 1 min, in the drying chamber or in the continuous drier

White Prints

For the white layer TRANSPRINT AF WHITE is printed in register onto the entire motif. In this way the covering power is achieved on dark substrates and the elasticity of the system is improved. The white paste has to be stirred up before use.

Print:	screen fineness 43 thread/cm – 68 thread/cm
Drying:	immediately at 40 °C to max 80 °C, 5 – 1 min, in the drying chamber or in the continuous drier

The white layer should not be printed with the same screen fineness as the colours to avoid a moiré effect.

Hotmelt Layer

TRANSPRINT AF BASE is printed in register onto the entire design. It is important to achieve a closed print paste layer. Right afterwards the sheets are granulated with TUBASSIST MELT CLEAR. The hotmelt adhesive is either scattered into the still wet print paste layer or the just printed sheets are drawn through a vat with hotmelt powder.

Printing	Screen fineness 43 thread/cm - 68 thread/cm
Drying	At 40 °C - 80 °C, 5 - 1 min in the drying chamber or in the continuous drier
Cleaning	off excess granulate after drying
Fixation and sintering	For achieving best fastnesses a fixation of the adhesive by means of a heat treatment is required; simultaneously the hotmelt layer is molten to stabilise it for further processing. Guidelines for fixation with hot air: 140 - 150 °C, approx. 1 min With radiant heat fixation or other energy types meaningful pretrials are necessary.
Transferring	With common ironing presses at 120 - 140 °C, 12 sec, medium pressure. Directly after having cooled down the transfers to normal room temperature the transfer paper is released from the design. If need be, a subsequent re-ironing can help improve the adhesion on critical articles.

The transfers are washfast up to 60 °C and fast to dry cleaning.

Additives and Auxiliaries

TUBASSIST FIX 104 W

If need be, recommended with up to 0.5 % to meet particular demands on the washfastness and fastness to dry cleaning. The use of fixing agents may possibly impair the fabric handle and elasticity. Print pastes already blended with fixing agent have to be processed immediately (within the pot life of 2 – 4 hours).

BEZAPRINT Colour Pigments

For dyeing TRANSPRINT AF BASE we recommend the addition of 0.1 – 8.0 % BEZAPRINT pigment colours.

Diluting/Thickening	In general not necessary; if needed, the viscosity can be decreased by adding a small amount of water (up to 10 %). The viscosity can be increased by homogeneously stirring in 0.1 - 0.5 % TUBIVIS DL 650.
Cleaning of Working Utensils	Clean with cold water; during shutdown times the printing screens are to be flooded. Colour stains on the screen can be soaked with a suitable household cleaner (e.g. dishwashing soap); cured paste residues have to be removed mechanically. We recommend checking the stability of the screens to the applied cleaning agents.

Recommendation for Use

We recommend making it a rule to test the suitability of the print pastes for the intended substrate in terms of wetting, adherence, fastness properties, thermostability and processing parameters before starting production and to control everything during production.

* To us formaldehyde-free means that all recipe components neither contain nor release formaldehyde during production or processing.

We reserve the right to modify the product and technical leaflet.

Our department for applied technique is always at your service for further information and advice.

Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding with regard to possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods which are beyond our control.

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